RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: <u></u>

Source:

Date Processed by STIC:

ENTERED



IFWP

RAW SEQUENCE LISTING DATE: 01/27/2006
PATENT APPLICATION: US/10/564,981 TIME: 09:58:38

```
3 <110> APPLICANT: MINERVA BIOTECHNOLOGIES CORPORATION
      4
              Bamdad, Cynthia C
      6 <120> TITLE OF INVENTION: METHODS FOR DIAGNOSIS AND TREATMENT OF CANCER
      8 <130> FILE REFERENCE: 13150-70090US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/564,981
C--> 10 <141> CURRENT FILING DATE: 2006-01-13
    10 <150> PRIOR APPLICATION NUMBER: US 09/996,069
     11 <151> PRIOR FILING DATE: 2001-11-27
     13 <150> PRIOR APPLICATION NUMBER: US 10/237,150
     14 <151> PRIOR FILING DATE: 2002-09-05
     16 <150> PRIOR APPLICATION NUMBER: US 10/236,863
     17 <151> PRIOR FILING DATE: 2002-09-05
     19 <150> PRIOR APPLICATION NUMBER: PCT/US2004/027954
     20 <151> PRIOR FILING DATE: 2004-08-26
    22 <150> PRIOR APPLICATION NUMBER: US 60/610,038
    23 <151> PRIOR FILING DATE: 2004-09-14
     25 <150> PRIOR APPLICATION NUMBER: PCT/US2005/032821
     26 <151> PRIOR FILING DATE: 2005-09-14
    28 <160> NUMBER OF SEQ ID NOS: 29
     30 <170> SOFTWARE: PatentIn version 3.3
     32 <210> SEQ ID NO: 1
    33 <211> LENGTH: 39
    34 <212> TYPE: PRT
     35 <213> ORGANISM: Homo sapiens
    37 <400> SEQUENCE: 1
    39 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
                        5.
                                            10
    43 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
                    20
    47 Ser His His His His His
    48
               35
    51 <210> SEQ ID NO: 2
    52 <211> LENGTH: 51
    53 <212> TYPE: PRT
    54 <213> ORGANISM: Homo sapiens
    56 <400> SEQUENCE: 2
    58 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
                                            10
    62 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
                   2.0
                                        25
    66 Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala His His His
                                    40
    70 His His His
```

RAW SEQUENCE LISTING DATE: 01/27/2006
PATENT APPLICATION: US/10/564,981 TIME: 09:58:38

```
71
       50
74 <210> SEQ ID NO: 3
75 <211> LENGTH: 54
76 <212> TYPE: PRT
77 <213> ORGANISM: Homo sapiens
79 <400> SEQUENCE: 3
81 Val Gln Leu Thr Leu Ala Phe Arq Glu Gly Thr Ile Asn Val His Asp
85 Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Pro Tyr
               20
                                  . 25
89 Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe
           35
                               40
93 His His His His His
94
       50
97 <210> SEQ ID NO: 4
98 <211> LENGTH: 31
99 <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <400> SEQUENCE: 4
104 His His His His His Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe
                    5
                                        10
108 Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu
109
                20
                                    25
112 <210> SEQ ID NO: 5
113 <211> LENGTH: 46
114 <212> TYPE: PRT
115 <213> ORGANISM: Homo sapiens
117 <400> SEQUENCE: 5
119 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly
120 1
                    5
123 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro
                                    25
127 Pro Ala His Gly Val Thr Ser Ala His His His His His
            35
                                40
131 <210> SEQ ID NO: 6
132 <211> LENGTH: 33
133 <212> TYPE: PRT
134 <213> ORGANISM: Homo sapiens
136 <400> SEQUENCE: 6
138 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
                   5
                                        10
142 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
143
146 Ser
150 <210> SEQ ID NO: 7
151 <211> LENGTH: 45
152 <212> TYPE: PRT
153 <213> ORGANISM: Homo sapiens
155 <400> SEQUENCE: 7
```

RAW SEQUENCE LISTING DATE: 01/27/2006
PATENT APPLICATION: US/10/564,981 TIME: 09:58:38

Input Set : A:\13150-70090US.ST25.txt
Output Set: N:\CRF4\01272006\J564981.raw

157 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys 158 1 161 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val 165 Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala 166 35 40 169 <210> SEQ ID NO: 8 170 <211> LENGTH: 25 171 <212> TYPE: PRT 172 <213> ORGANISM: Homo sapiens 174 <400> SEQUENCE: 8 176 Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val Val 5 177 1 180 Val Gln Leu Thr Leu Ala Phe Arg Glu 181 20 184 <210> SEQ ID NO: 9 185 <211> LENGTH: 40 186 <212> TYPE: PRT 187 <213> ORGANISM: Homo sapiens 189 <400> SEQUENCE: 9 191 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly 195 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro 20 25 30 199 Pro Ala His Gly Val Thr Ser Ala 35 203 <210> SEQ ID NO: 10 204 <211> LENGTH: 1255 205 <212> TYPE: PRT 206 <213> ORGANISM: Homo sapiens 208 <400> SEQUENCE: 10 210 Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Thr 10 214 Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly 20 25 218 Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser 40 45 222 Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His 55 226 Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu 70 75 230 Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln 234 Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr 100 105 238 Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro 120 242 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr 243 130 135

RAW SEQUENCE LISTING DATE: 01/27/2006
PATENT APPLICATION: US/10/564,981 TIME: 09:58:38

	Arg 145	Pro	Ala	Pro	Gly	Ser 150	Thr	Ala	Pro	Pro	Ala 155	His	Gly	Val	Thr	Ser 160
		D						_	~3	_			_	_		
	Ala	PIO	Asp	Thr		Pro	Ата	Pro	GIY		Thr	Ата	Pro	Pro		His
251	~-3				165	_	_	_,	_	170		_			175	
	Gly	Val	Thr		Ala	Pro	Asp	Thr	_	Pro	Ala	Pro	Gly		Thr	Ala
255			_	180					185					190		
	Pro	Pro		His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
259			195					200					205			
262	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
263		210					215					220				
266	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
267	225					230					235					240
270	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
271					245					250					255	
274	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
275				260					265					270		
278	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
279			275		-			280			_		285			
282	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
283	-	290					295		•			300			-	
286	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Glv	Val	Thr	Ser
	305				-	310					315		•			320
290	Ala	Pro	Asp	Thr	Arq	Pro	Ala	Pro	Glv	Ser	Thr	Ala	Pro	Pro	Ala	His
291			-		325				-	330					335	
294	Gly	Val	Thr	Ser	Ala	Pro	asp	Thr	Arq	Pro	Ala	Pro	Glv	Ser	Thr	Ala
295	•			340			•		345				4	350		
298	Pro	Pro	Ala	His	Glv	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arq	Pro	Ala	Pro
299			355		•			360					365			
	Gly	Ser		Ala	Pro	Pro	Ala		Glv	Val	Thr	Ser		Pro	Asp	Thr
303		370					375		2			380				
	Arg		Ala	Pro	Glv	Ser		Ala	Pro	Pro	Ala		Glv	Val	Thr	Ser
	385				017	390					395		U -1			400
	Ala	Pro	Asp	Thr	Ara		Ala	Pro	Glv	Ser		Ala	Pro	Pro	Ala	
311			1101		405		1114	110	O ₁	410	****	1114	110	110	415	
	Gly	Val	Thr	Ser		Pro	Δen	Thr	Δra		Δla	Pro	Glv	Ser		Δla
315		• • • •	****	420	711LU	110	1105	****	425	110	1114	110	Ory	430		71.LU
	Pro	Pro	Δla		Glv	₩a1	Thr	Ser		Dro	Δαη	Thr	Δra		Δla	Pro
319	110	110	435	11113	Gry	Val	1111	440	лια	110	пор	1111	445	110	лια	110
	Gly	Car		ת ות	Dro	Dro	777		C111	17-1	Thr	cor		Dro	Λcn	Thr
323	Gry	450	1111	Ala	PIO	PIO	455	UIS	Gry	vai	1111	460	AIA	FIO	Asp.	. 1111
	7 ~~		ח ד ת	Dvo	C1	Cox		77-	Dwo	Dro	71.		C1	77-1	The	Com
		PIO	Ата	PIO	Gry		1111	Ala	PIO	PIO		пір	GIY	val	1111	Ser
	465	D	7	mb	7	470	77-	D	a 1	C	475	77-	D	D	77-	480
	Ala	PLO	Asp	TIII	_	PI.O	ATG	PI.O	GTÀ		IIII.	ATG	PLO	PI.O		HIS
331	~1	17-7	መኔ	0	485	D	3	ml.	3	490	7.7 -	D	a 2	0	495	7 1
	Gly	val	rnr		Ата	Pro	Asp	ınr	-	Pro	АТА	Pro	GIÀ		Inr	Ата
335	D	D	7 T .	500	~1	77- 7	m).	0.	505	D	3	m).	3	510		5
	Pro	Pro		HIS	GIY	vaı	Inr		Ala	Pro	Asp	ınr	_	Pro	Ala	Pro
339	~3	_	515		_	_		520				_	525	_	_	_,
342	Gly	ser	Tnr	Ата	Pro	Pro	Ата	HIS	GIY	val	Thr	ser	Ala	Pro	Asp	Thr

RAW SEQUENCE LISTING DATE: 01/27/2006 PATENT APPLICATION: US/10/564,981 TIME: 09:58:38

343		530					535					540				
346	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
347	545					550					555					560
350	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
351					565					570					575	
354	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
355				580					585					590		
358	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
359			595					600			•		605			
362	Gly	Ser	Thr	Ala	Pro	${\tt Pro}$	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
363		610					615					620				
366	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
	625					630					635					640
370	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
371					645					650					655	
374	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
375				660					665					670		
	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
379			675					680					685			
	Gly		Thr	Ala	Pro	Pro		His	Gly	Val	Thr		Ala	Pro	Asp	Thr
383		690	_		_		695					700				
	_	Pro	Ala	Pro	Gly		Thr	Ala	Pro	Pro		His	Gly	Val	Thr	
	705					710					715	_				720
	Ala	Pro	Asp	Thr	-	Pro	Ala	Pro	Gly		Thr	Ala	Pro	Pro		His
391	~1		1	•	725	_	_	~1	_	730		_	~3	_	735	
	GIY	vaı	Thr		Ala	Pro	Asp	Thr	_	Pro	Ala	Pro	Gly		Thr	Ala
395	D	D	77-	740	01. -	**- *	m1	.	745	D	7	5 10	3	750	27-	D
398	Pro	Pro		HIS	GIY	vai	Inr		Ala	Pro	Asp	Tnr	Arg	Pro	Ala	Pro
	C1++	e 0 x	755	71-	Dro	Dro	ח ה	760	C1**	17 n l	Th.∽	Cox	765 Ala	Dro	7.00	Th∝
403	GIY	770	1111	міа	PIO	PLO	775	птъ	GIY	vai	1111	780	міа	PIO	Asp	Till
	Δrα		Δla	Pro	Glv	Ser	-	Δla	Pro	Pro	Δla		Gly	Val	Thr	Ser
	785		u	110	017	790		1114	110	110	795		Cly	val		800
		Pro	Asp	Thr	Ara		Ala	Pro	Glv	Ser		Ala	Pro	Pro	Ala	
411					805				2	810					815	
	Glv	Val	Thr	Ser		Pro	asA	Thr	Ara		Ala	Pro	Gly	Ser		Ala
415	•			820			•		825				•	830		
418	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
419			835		-			840			-		845			
422	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
423		850					855					860				
426	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
427	865					870					875					880
430	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
431					885					890					895	
434	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
435				900					905					910		
	Pro	Pro	Ala	His	Gly	Val	Thr		Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
439			915					920					925			

VERIFICATION SUMMARYDATE: 01/27/2006PATENT APPLICATION: US/10/564,981TIME: 09:58:39

Input Set : A:\13150-70090US.ST25.txt
Output Set: N:\CRF4\01272006\J564981.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date